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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/825,918	04/03/2001	William T. Turner	12017-24/JWE	4546

7590 06/30/2005

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EXAMINER	
FLETCHER, MARLON T	

ART UNIT	PAPER NUMBER
2837	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/825,918	TURNER, WILLIAM T.	
	Examiner	Art Unit	
	Marlon T. Fletcher	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *22-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *22-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 22-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinman '999 or Blucher et al in view of Anderson '117.

Each patent (Kinman and Buchler discloses an upper having an upper winding wounded longitudinally around the upper bobbin in a longitudinal plane and lower coil having a lower winding wounded longitudinally around the lower bobbin in a longitudinal plane, and a single, flat non-magnetized ferromagnetic plate 41 disposed between two coils in a longitudinal plane. Each patent (Kinman and Buchler) discloses at least one magnetic pole piece partially with the upper coil and partially within the lower coil and extending through a hole in the ferromagnetic plate 41. At least one magnetic pole piece extends from above the upper coil; wherein the opposing ends of the plate terminate approximately below the upper winding and the opposing ends of the plate terminate approximately above the lower winding (figure 1 of Kinman and Buchler). Buchler and Kinman disclose the pickup, wherein the bobbins each including a plurality of holes, the pickup further comprising a plurality of permanent magnet pole pieces situated within the holes of the bobbins and further comprising a plurality of screws that hold the bobbins together (Buchler – figure 3; Kinman – figures 1 and 8). Buchler

disclose the pickup, wherein the screws (7) include ferromagnetic screws that alter the inductance of the pickup when holding the bobbins together, wherein the ferromagnetic screws (7) comprise steel; wherein the plate comprises a steel plate (4).

Neither Kinman '999 nor Blucher et al. disclose a completely flat ferromagnetic plate.

However, Anderson '117 discloses a pickup having a upper and lower coil (figures 2 and 4), having a completely flat flexible magnet plate (20) disposed between the two coils.

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the teachings of Anderson with either Kinman'999 or Blucher et al., because Kinman '999 and Blucher et al. provide all of the limitations, except for a completely flat plate. Anderson provides this additional feature for use with a pick up having an upper and lower coil. Although Anderson does not disclose ferromagnetic material, Anderson discloses magnetic material. Kinman and Blucher et al. provide ferromagnetic material. The ferromagnetic material means that the material is magnetizable. Anderson provides a magnet which means the material is magnetized. It would be obvious to combine the references to provide a completely flat material whether the material be ferromagnetic or magnetic, wherein the flat material provides a separation between the upper and lower coils, and magnetism changes the inductance; thereby, enhancing the invention.

3. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kinman '520 or '966 in view of Anderson.

Each patent to Kinman discloses an upper coil 30, a lower coil 20, and a single non-magnetized ferromagnetic plate 41 disposed between two coils. The plate forms part of metallic shield of magnetically permeable material. The material is mild steel and non-magnetized. Neither reference discloses a completely flat plate.

However, Anderson '117 discloses a pickup having a upper and lower coil (figures 2 and 4), having a completely flat flexible magnet plate (20) disposed between the two coils.

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the teachings of Anderson with either Kinman '520 or '966, because Kinman '520 and '966 provide all of the limitations, except for a completely flat plate. Anderson provides this additional feature for use with a pick up having an upper and lower coil. Although Anderson does not disclose ferromagnetic material, Anderson discloses magnetic material. Kinman and Blucher et al. provide ferromagnetic material. The ferromagnetic material means that the material is magnetizable. Anderson provides a magnet which means the material is magnetized. It would be obvious to combine the reference to provide a completely flat material whether the material be ferromagnetic or magnetic. It would be obvious to combine the references to provide a completely flat material whether the material be ferromagnetic or magnetic, wherein the flat material provides a separation between the upper and lower coils, and magnetism changes the inductance.

4. Claim 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinman '999 or Blucher et al in view of Freeman '461.

Each patent discloses an upper and lower coil, and a single, flat non-magnetized ferromagnetic plate 41 disposed between two coils. Regarding claim 23, each patent discloses at least one magnetic pole piece partially with the upper coil and partially within the lower coil and extending through a hole in the ferromagnetic plate 41. Regarding claim 24, at least one magnetic pole piece extends from above the upper coil. Neither Kinman '999 nor Blucher et al. disclose a completely flat ferromagnetic plate.

However, Freeman '117 discloses a pickup having a upper and lower coil (figure 3), having a completely flat flexible magnet plate (20) disposed between the two coils.

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the teachings of Freeman with either Kinman'999 or Blucher et al., because Kinman '999 and Blucher et al. provide all of the limitations, except for a completely flat plate. Anderson provides this additional feature for use with a pick up having an upper and lower coil. Freeman discloses a completely flat magnetic material. Kinman and Blucher et al. provide ferromagnetic material. The ferromagnetic material means that the material is magnetizable. Freeman provides a magnet which means the material is magnetized. It would be obvious to provide the claimed invention in view of combination, wherein the combination is merely used to provide the different material for providing the same result.

Response to Arguments

5. Applicant's arguments filed 04/08/2005 have been fully considered but they are not persuasive.

The applicant continues to make the arguments that the references should no combined or the combination is not obvious. The examiner disagrees and holds the same position. The examiner believes that the references are combinable and that the teachings meet the claimed limitations. The specification discloses the ferromagnetic plate being sandwiched between plates 19 and 20, wherein the ferromagnetic plate provides separation between the upper and lower coils. It is obvious to make the ferromagnetic material between the coils completely flat, wherein the primary purpose is to provide separation between the upper and lower coils, while being able to create a magnetic field between the two coils. Because the references all teach an upper and lower coil, including a material (magnetic) providing a separation between the two coils, it is clear that the art is related and the teachings could possibly be combined. The effects of providing a flat or non-flat material separating the coils, is an obvious variation, because the teachings are taught in the prior art to provide either a flat or non-flat material, wherein the material is magnetic, which thereby, provides a change in inductance. The amendments and additional claims did not provide any limitations that were not found in the prior art. The claims are broad and are met by the prior art.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marlon T. Fletcher whose telephone number is 571-272-2063. The examiner can normally be reached on M-W, F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 571-272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marlon T Fletcher
Primary Examiner
Art Unit 2837

MTF
June 27, 2005